DOCUMENT RESUME

ED 178 579 TM 009 741

AUTHOR Haertel, Geneva D.; Talmage, Harriet
TITLE Parents, Teachers and Evaluators: A Partnership to Enhance Home and School Learning Environments.
PUB DATE [Apr 79]
NOTE 15p.; Paper presented at the annual meeting of the American Educational Research Association (63rd, San Francisco, CA, April 8-12, 1979)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Academic Achievement; Action Research; *Classroom Environment; College Faculty; Elementary Education; *Family Environment; Grade 3; Grade 6; Parent Participation; *Productivity; Reading Achievement; Research Projects; School Community Cooperation; School Integration; Success Factors; *Teaching Quality; *Time Factors (Learning)
IDENTIFIERS Walberg (Herbert J)

ABSTRACT

Based on the Walberg educational productivity model--which relates one quantifiable educational outcome to a range of inputs--a research project was undertaken to determine the impact of school desegregation on the academic achievement of third and sixth grade students in a Chicago suburb. A four-phase cooperative effort was instituted, involving parents, school personnel, and university staff. Achievement test scores were used as the quantifiable outcome; and home environment, instructional quality, quantity of instruction, and classroom learning environment were selected as input productivity factors. The project was composed of four phases: research and theory building; development and testing; practical application of the findings; and extension and projection of the findings. Phase two was composed of five stages: (1) preparing the collaborative effort; (2) selecting variables associated with the productivity factors; (3) selecting instruments to measure each factor; (4) field testing the instruments; and (5) examining test results. In phase three, data analyses were used to explore better home and school intervention strategies. Phase four objectives were comprised of continuing cooperative relationships; providing home and school strategies; documenting effective strategies; and serving as a model for other school districts. (Preliminary findings and comments about action research are included.) (MH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

PARENTS, TEACHERS AND EVALUATORS: A PARTNERSHIP TO ENHANCE HOME AND SCHOOL LEARNING ENVIRONMENTS[1,2,3]

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Geneva D. Haertel
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Geneva D. Haertel, Research Associate

and

Harriet Talmage, Professor of Education
University of Illinois at Chicago Circle

ED178579

A shift from theory building to research in the applied setting and thence into practice presents obstacles well documented in educational annals (Clifford, 1973). Despite the checkered history of action research (Corey, 1973; Hodgkinson, 1957), as government funded education programs require parent and community involvement at the planning as well as the implementation and evaluation stages (Gittell, 1967; Grand, 1979), action research may provide a basis for meaningful community-school-university collaboration. Hodgkinson identified a number of reasons for past failures of action research projects. Hopefully these are correctable with the sophisticated research and technical skills now available, and with the use of clear goal statements and generalizable theory as a directive for action research projects.

The project herein reported tested an educational productivity model of academic achievement in an applied setting through a home-school-university partnership. This entailed development of instruments for measuring selected productivity factors; implementing the data collection; interpreting the findings; and developing intervention strategies as suggested by the findings to enhance academic achievement. The project rests on two assumptions about applied collaborative research: (1) theory testing in applied settings necessitates a level of trust that can only come from an open exchange of parent and school personnel's perceptions about the role of home and school environments in enhancing achievement; and (2) all parties represented in the model must be included in the total theory testing process: from planning through implementation and subsequent policy decision making.

The first section of the report describes the setting in which the project unfolded and the process for engaging parents, teachers, administrators, and University staff in an open exchange leading to collaborative efforts. The second section examines the four phases of the project that lead from research and theory building, to development and testing in the applied setting, to development of strategies that intervene in home and school practices, and finally to generalizing the results beyond the initial group. The last section summarizes the outcomes of putting theory into practice and offers recommendations for other efforts at collaborative action research.

TM 009 741

Background

Park Forest Elementary School District #163 and the Office of Evaluation Research (OER), University of Illinois at Chicago Circle, have been co-participants in evaluating the educational impact of desegregation since the district initiated its desegregation plan. District #163 is a K-8 school district located near the Chicago metropolitan area. At the time of the project, ten schools (four primary, four intermediate, and two junior highs) served approximately 3100 students. Of these students approximately 38% represent minority groups. Of the 38% minorities, nearly 98% are black. Most of the district's children come from middle and lower

middle class homes. About one out of every six children is enrolled in a free lunch program. In describing the social class of the 38% minority students, approximately 86% are from lower class homes.

The District initiated its voluntary desegregation plan in September of 1972, and OER has been involved with the District since that time. The cooperative relationship between the District and OER has provided the District with a solid data base to guide educational policy making. As an example, major District efforts were made to strengthen the teacher evaluation process and to improve reading and mathematics instruction in all District classrooms on the basis of the evaluation findings.

The current research project, developed cooperatively by the school district and OER in the fall of 1978 capitalizes on the previous findings and sets further study within a theoretical framework based on the Walberg educational productivity model.[4,5] This model relates one important, quantifiable outcome of schooling to a range of inputs, also known as productivity factors. The measured outcome of schooling is achievement test scores, and the six selected inputs are ability, motivation, home environment, classroom learning environment, quantity and quality of instruction. These inputs were identified on the basis of significant, well substantiated correlations with the outcome measure. The Walberg model is predicated on a mathematical formula from the econometric literature. The model has anticipated predictive value in that the weighted contribution of each of the six types of input to academic achievement can be estimated. Four of the six educational productivity factors, over which the home and school have some control, were selected as the focus for the Park Forest project. These were home environment, quality of instruction, quantity of instruction, and the classroom learning environment.

A four-phase cooperative effort involving 12 parents who had children enrolled in third or sixth grade, 17 school personnel (8 of whom were third and sixth grade teachers), and 8 members of the university staff, was initiated during the 1977-1978 school year with seed monies from School District #163 and OER. This was augmented by Equal Educational Opportunity Department of the Illinois Office of Education funding in the spring of 1978. Classrooms at the third and sixth grade levels were involved in the development and testing phase of the project. This decision reflected the District's selection of third and sixth grade teachers to participate in the project.

The selection of both teachers and parents to participate in the project was carried out under the guidance of the school principals and the Assistant Superintendent of Curriculum. Each principal was asked to select one third and one sixth grade teacher to participate in the project. None of the teachers selected was scheduled to undergo district evaluation during the year. As one selection criterion, only teachers regarded as "very capable" by their peers were invited to participate. This was to ensure effective communication of the project's outcomes to the larger body of non-participating teachers. Parents were selected on the basis of past interest in school affairs, regardless of the form the interest took (outspoken critics or advocates of present school policy). The school district made a specific effort to include several parents of children who had not had successful school experiences. Of the twelve parents who participated, four could be described as disaffected from the district's schools and policies.

Project Implementation Phases and Interactions

Figure 1 illustrates the four phases of the project. The project design, as represented in the flow chart, serves two purposes: it lays out the implementation schedule, and it suggests the dynamic relationship among the phases.

Phase 1, theory building and research, overrides the project. It was initiated prior to Phase 2 and has been ongoing through the course of the project and beyond. Theory building and research prepare the groundwork for the other phases and in turn is enriched by findings from application and practice. Phase 2, development and testing, encompasses five collaborative activities. These build on the input from Phase 1 and adjust the findings in Stage 1 to more adequately reflect the perspectives of home and school and the constraints imposed on research in applied settings. Phase 3 builds on the findings in Phases 1 and 2 to move from applied research into practice. Phase 4 draws from the other three phases to create an implementation model generalizable beyond the initial action research group.

Phase 1: Research and Theory Building

Phase 1, theory building and ongoing research, is a continuous research and study component. During this phase extensive literature reviews of the correlates of academic achievement were conducted. These literature reviews resulted in papers and bibliographies which were shared with parents and school personnel in a series of workshops. The relevant research literature from the disciplines of education, sociology, and psychology were examined. In particular, literature reviews were conducted in the areas of quality of instruction, quantity of instruction, the classroom learning environment, and the home environment. These reviews considered not only one-shot experimental studies, but also long-term interventions, such as Project Follow-Through, so that intervention strategies developed by other teams of researchers could serve as a resource. A review of the work done in each area was prepared for an audience of parents and teachers and used as a basic reference document throughout Phases 2 and 3. Figure 1 depicts the dynamic relationship between Phase 1 (Theory and Ongoing Research) and each of the three major subsequent phases of the project.

Phase 2: Development and Testing

Phase 2 was underway in April 1978 with the identification of representative parents and teachers of third and sixth grade students, building principals and central office staff, and the University group.

Five sequential stages comprised this phase: (1) laying the ground for the collaborative undertaking at an organizational meeting; (2) selecting education production factors over which the home and school have some control and identifying the salient variables amenable to measurement; (3) developing instruments for measuring the variables; (4) field testing the instruments in selected third and sixth grade classes; and (5) studying the field test results, revising the instruments, and testing the educational productivity model with third grade classes.

Throughout the course of Phase 2, the uncertainties and fears among the various groups in the collaborative research study were slowly reduced. The University group quickly learned that parents offered important insights on the home environment that were invaluable in identifying salient variables. Teachers had to learn to deal with parents as equal partners. An additional benefit was that both teachers and university personnel were forced to communicate in clearer language, as parents quickly lost patience with "educationese." Social class and not race proved a more difficult barrier to overcome in this relationship. Principals, too, had to adjust their role from that of administrator to one of an equal partner. This behavior, too, underwent modification over time. Suspicions were never completely allayed although it became evident that principals were learning to listen. Nearing the end of the fifth stage of Phase 1, most everyone had learned to set aside personal agenda and set the project tasks as primary.

Definition and organization. During this first stage, University staff met separately with parents and teachers to assure that inputs and concerns from both groups had been adequately attended to prior to meeting jointly. Parents and teachers were each introduced to the proposed study as well as the Walberg educational productivity model. The introduction to the Walberg model made use of the basic reference document prepared during Phase 1. However, the content was summarized and presented orally by the university staff and dialogue was encouraged. After each of the six input or production factors were briefly presented, parental and teacher input were solicited. In particular, each group was requested to think of examples, counter-examples or personal experiences relevant to each input factor. For example, in the area of home environment, research findings were presented which stressed the importance of verbal stimulation. Parents were anxious to report their efforts at enhancing their child's verbal ability by reading with them, discussing a television program, helping them write letters and other activities. Similar sharing of experiences occurred as each input or production factor was discussed. It should be pointed out that as quality of instruction was presented, teachers became much more involved and curious about prior research findings and providing examples from their own classroom experience. At the end of each of the separate initial meetings the goals and sequence of the proposed study were also carefully laid out as depicted in Figure 1 and assignments for the next session were planned.

Variables and Measurement. At this meeting parents, teachers and administrators, and University staff all met jointly for the first time. The major purpose of this activity was to select factors and their variables from the Walberg educational productivity model and discuss possible methods of measuring them on the basis of cost-effectiveness. Six groups were formed consisting of at least one parent, one teacher or administrator, and one University staff member. Four production or input factors were considered: home environment, quantity of instruction, quality of instruction, and the classroom learning environment. Each group prepared a list of variables that were associated with the production factor they were studying. In addition, they generated positive and negative examples of each factor, and possible ways of measuring them. The three-way dialogue involving parents, school personnel, and University personnel provided a broad base of inputs and assured better coverage of salient variables than possible if any of these groups had been excluded.

Extensive discussion occurred as the desire to measure "everything" had to be balanced effectively with the concern for cost-effectiveness.

Instrumentation. This was the topic of the second meeting of the entire group. Groups were formed based on the production factors studied at the prior meeting. The groups laid the groundwork for instruments which would measure each factor. It should be pointed out that University staff provided all three groups with an example of an instrument which could serve as a model for the development of their instrument. Each group agreed on the type of measures to be employed, the sample and arrangements for data collection. During this meeting experiences occurred which reflected the particular expertise of the parents and school personnel. For example, in the group working on home environment, parents played a vital role in producing items to measure the construct. They also were heavily involved in determining whether the tone of the items would be offensive to other parents. In the group on Quality of Instruction, teachers played a crucial role in the final selection of variables to be measured using an observation scale. At this time, teachers became sensitive to the term "Quality of Instruction" and it was decided to refer to the factor as Instructional Practices. The new term seemed less judgmental. The selection of teacher behaviors to be rated, using this observation instrument, produced diverse responses on the part of school personnel. Some teachers expressed doubts that reliable and valid ratings of such behaviors could be made, whereas others felt the instrument development activity helped to make

them more aware of effective teaching practices. In the Instructional Practices group the dialogue between teachers and parents provided both parties with a better sense of parental expectations in the light of classroom realities. One important decision made at this meeting was to include parents in the actual field-testing of the instruments, a somewhat novel role for parent groups.

Prior to collecting data for field testing the productivity model, the Instructional Practice and Time for Learning instruments were pilot tested. The observers were trained on the use of each of the two observation instruments. Each observer spent approximately 1 1/2 days in training. In some instances parents joined the observation team to provide additional information on the quality of data being collected. For example, parents were asked to cross-validate the Time for Learning observation on a single child. This was accomplished by having them maintain a written log of one child's activities during reading class which could be compared with the observer's coding of activities. Results of such efforts suggested that the Time for Learning instrument accurately estimated amounts of engaged and non-engaged time. Results of the pilot tests were brought back to the total group for further refinement.

Field Testing of the Model. The field testing was planned by parents, school and university personnel co-operatively. One third grade class in each of the primary schools participated. The following data were collected:

(1) The Instructional Practices instrument was used to observe the four teachers in each of the classrooms during the reading instruction period.

(2) The Time for Learning observation instrument was used to examine the behavior of nine randomly selected third graders from each class. Each observer watched three children during reading instruction.

(3) My Class Inventory (Anderson & Walberg, 1974), a paper-pencil test of students' perception of their classroom environment, was group administered to all children in each class. The inventory contains five scales that measure cohesiveness, competitiveness, difficulty, friction and satisfaction. Items measuring higher and lower thought processes were added (Steele et al, 1974).

(4) Each of the four teachers was asked to estimate the typical percent of time each student in their class was involved during the regular reading period.

(5) Attendance data for each child in each of the four classes was provided by the District office for the 1977-78 school year.

(6) Raw total scores on the reading and mathematics subtests of the California Test of Basic Skills were provided by merging data from a previous study with all data gathered (points 1-5). The February 1978 scores were used in the analyses as the dependent variable.

At the last group session, the final design was developed for the part of the data collection employing the Parent Questionnaire. Parents of students in the four third grade classrooms were asked to attend a brief evening meeting. The questionnaire was administered at two sites by staff from OER and parents who had participated in the inservices. In addition District #163 administrative personnel were available to answer questions. The information gathered included sex of child, birth order, number of siblings as well as other specific information on the home environment. A follow-up questionnaire was mailed to parents who were not able to attend. A total of one-third of the parents filled out the questionnaire either at the time of administration or in response to the follow-up mailing of the questionnaire.

In summary, the inservice participants were actively involved in all phases of the project including: instrument development, data collection, as well as participation as subjects. In addition, they played a critical role in the interpretation of data as will be discussed in the following section.

Study and Revision. The total group met to discuss the progress of the prior sessions. Preliminary outcomes of the field testing of the observation instruments were also discussed. These findings were presented without identifying specific results from any one classroom. In examining findings from the Quantity of Instruction instrument, participants suggested possible interventions to reduce non-engaged time. In reviewing the findings of the Instructional Practices instrument, participants generated two or three examples of each of the twenty-five teaching behaviors listed. The purpose of this activity was to make explicit what observable behaviors might constitute positive examples of each item. Items presenting difficulties were identified for further refinement.

At the conclusion of Phase 2 an action research model for cooperative involvement of parents and school personnel with university faculty and graduate students tested a set of instruments for measuring home support, instructional practices, and time for learning. Data on the classroom learning environment and a measure of student ability were added to 2 and 3 and became the input for discussion of ways tc put applied research into a form suitable for practice.

Phase 3: Applied Research into Practice

Phase 3 had a duel purpose: to engage the four constituent groups in studying the first round of data analyses, and to use the findings to develop home and school intervention strategies in ways that could enhance academic achievement.

Some additional funds were made available through the Center for Program Development in Education. With these funds and monies carried over from Phases 1 and 2, in the main, the same group of parents, teachers, administrators and university staff set aside a block of time following the end of the school year to study the data, revise instruments, and come up with a format for moving action research into home and school practices.

On returning in June to work together, the cooperative spirit of the groups was at an all time high. The groups awaited the report of the findings and contributed insightfully in interpreting them. Barriers went up again quickly, however, as the total group turned to developing intervention strategies. Everyone pitched in cooperatively in generating home support strategies. But discussion of classroom strategies for addressing quality of instruction was taken as a threat to teacher classroom autonomy and viewed as parent interference, and possibly a way of the central administration to hold teachers accountable without consultation with the teachers' organization. There are many roadblocks to moving action research into practice. These can, nonetheless, be resolved with candor, patience, and continued airing of concerns.

Study and revision. The preliminary findings were presented to the total group for its study. The school staff and parents were able to follow the presentation of the purpose, results, and implications of the analyses. They suggested a number of interpretations of the findings and expressed strong commitment to following through on the implications in this phase of the work and into Phase 4. The findings are highlighted below.

1. Instructional practices. Among 25 practices only one was strongly and significantly related to increased achievement: "Corrective instruction (re-teaching is used for this lesson)."

The other 24 instructional practices have been shown in prior studies in the research literature to relate positively to optimal achievement gains. It emerged in the analysis that the sample of teachers exhibited nearly every one of the practices consistently. We were working with skilled teachers. It is evident that a subsequent test of the model should involve a greater range of teachers.

2. Time for learning. Although the two observers agreed with reasonable precision on the percent of engaged time, the estimates did not correlate significantly with achievement. The group concluded that while the breakdown of how time is spent during instruction is of value, for the feasibility test not enough students were observed, the percent of engaged time undoubtedly for a given student varies considerably from lesson to lesson, and an observation of only one lesson is insufficient. The data obtained, however, proved invaluable in suggesting strategies for reducing nonengaged time.

   Teachers of the same students were asked to estimate the percent of engaged time for each student in the class. The teacher rating for engaged time, however, turned out to be a significant correlate of reading and mathematics achievement as did daily attendance. The correlations were diminished slightly when controlling for home environment, which suggests that the home partly determines attendance and engagement in learning but that each of these factors brings an independent effect to the optimization of achievement.

3. Home environment. A large number of home environment variables were significantly correlated with achievement. The following items correlated positively with achievement (with especially strong correlates marked with a plus sign):

   child has a library card;
   parent has a library card (+);
   parent has been to the library this year (+);
   parent reads in front of children more than once a week;
   parent has an idea of how child's work compares with that of classmate;
   presence of magazines in the home (+);
   parent has been to Open House at school during the past year (+);
   child does not have regular chores to do at home (+);
   child does not help around the house;
   parent has worked as a volunteer during past month (+);
   parent has not read to child during past month (+);
   parent has some plans in mind for child's future;
   parent gets more information about school activities from child or school secretary rather than from other children or notes from school (+).

   On sibling birth order data, the findings confirm previous studies (Cicirelli, 1978); children from large families and those later in birth order are more likely to have lower achievement.

4. Classroom learning environment. Students in the four classes rated the the learning environment of their mathematics classes on several scales. It was found that children who perceived greater levels of difficulty with their lessons and more friction among the class members achieved less. Those students who saw greater social cohesiveness in their classes achieved more than others on average. Lastly, students who perceived greater emphasis on lower level thought processes such as memory, know-

ledge, and understanding achieved more than did children who saw more emphasis on higher level thought processes such as analysis, synthesis, and criticism.

These results were found provocative and generated important suggestions for further refinement of the applied action research. They served, too, as a resource for developing home and classroom intervention strategies for enhancing achievement.

Intervention strategies. This second step in moving action research findings into practice proved difficult. Subgroups were formed to work with a prototype format for developing home intervention strategies for use by teachers and by parents to be carried out at home. The group produced a number of "easy to use" activities involving parents with their children at home.

Group task time, however, needed to be set aside to attend to the concerns of the teacher group as the total group turned its attention to working with prototypes of instructional intervention strategies. Teachers wanted the prototype format for instructional intervention strategies to be as open ended as possible. They were concerned that the intervention strategies not be used as a basis for teacher evaluation. Administrative assurance of the purpose of strategies for enhancing teaching practices met with some reduction of anxiety; further work on the prototype helped to reduce some of these concerns.

The group completed a set of initial strategies for home and classroom using a simple format that both parents and teachers not involved in this study could use without difficulty. The items on the instruments and some of the findings generated the idea for each strategy for home or classroom use. As an example taken from the Instructional Practices instrument, the following item was a source of an intervention strategy:

ITEM: THERE IS A CLEAR PURPOSE IN THE LESSON.
(The observer can discern what it is the teacher is trying to get across: children appear to understand instruction; students get right down to work without having to raise questions.)

As an approach to developing an intervention strategy, observable teacher and student behaviors are listed on the prototype format as cues around which to think of strategies for making the purpose of a lesson clear to students.

This part of Phase 3 in moving applied action into practice highlighted several transitional steps requiring further attention:

1. A core of parents, teachers, and administrators must remain actively involved in the further development of strategies and in the overall action research endeavor.

2. Additional groups of parents and teachers need to be made familiar with the ongoing action research study and become involved in developing and testing the intervention strategies.

3. All third grade classes in the school district should participate in a second testing of the Walberg educational productivity model in order to provide sufficient data to test the model adequately.

4. Achievement of students whose parents and teachers are using the intervention strategies needs to be compared with academic achievement of students whose parents and teachers are not so involved.

5. A workshop format through which other parents and teachers in the school district can learn to use these strategies and self-developed strategies needs to be designed.

Phase 4: Extension and Projection

The objectives of Phase 4 are four-fold: (1) To further build a working relationship among parents, school personnel, and researchers in order to share the expertise of each group in bridging research and practice; (2) To provide parents and teachers with strategies for working with students at home and in class that show promise for improving achievement; (3) To document the effectiveness of home and school strategies in enhancing academic achievement; and (4) To provide a model for other school districts that is educationally and economically feasible to implement.

Phase 4 is conceived as a two-year project. In the first year the findings from Phases 1 through 3 will guide the application of research to practice. A project Advisory Committee, composed of the original parents, teachers, and administrators, will be augmented by a core of third and sixth grade parents. The Committee will work with the university staff and other outside consultants to develop and pilot test four workshop sessions to train parents and teachers to implement specific intervention strategies that will maximize educational productivity in the schools. They will also serve during the course of Phase 4 as a resource to the schools where the educational productivity model is to be field tested. The Advisory Committee will continue its work on developing home and school intervention strategies throughout the course of the project.

The productivity factors selected for workshop development are home support, quality of instruction, and classroom environment.

The workshop sessions, as developed and refined by the Advisory Committee, will then be field tested in two schools, one K-3 primary center and one 4-6 intermediate center. The school participants will include 15 parents, plus administrators from each school. The Advisory Committee members will serve as workshop facilitators. Several of the parents and teachers in the two selected schools are presently Advisory Committee members, hence a close network between the Advisory Committee and the parents and teachers in the field test schools will be assured.

In the second year of Phase 4, the workshops will be introduced to the other schools in the District. Formative evaluation of the initial workshops should provide the data for improving both the implementation strategies and the intervention strategies.

Summary and Recommendations

Moving theory into applied research and thence into practice calls for a degree of collaboration among educational researchers, educational practitioners, and concerned parents not hitherto practiced in the name of "action research." Attention to the process of involving people in a partnership is mandatory, given the differing agenda, perceptions, and language for communicating educational concepts of the various groups. Each group has its own set of constraints and time table. Each group needs to fully understand the constraints under which the others function. Researchers must understand that time spent on the process of communication, through allaying suspicions and anxieties, is time well spent. In the long run it establishes a forum through which the partners can function comfortably, thereby extracting the unique contribution each group can make. The additional effort researchers must expend in collaborative arrangements is more than compensated for by the insights practitioners and parents bring to the research.

We suggest consideration of the following recommendations:

1. Efforts to enhance academic achievement should be comprehensive in nature, involving parents, teachers, school administrators and university personnel. Through this kind of collaborative effort, attention can be given to the multiple causes of low achievement, not just isolated factors.

2. The important goals as well as anxieties of each of these major groups must be recognized and acknowledged if effective cooperative involvement is to be attained.

3. The role of University personnel in action-research should be (1) to provide a pool of research and technical skills; (2) to relate the sometimes conflicting goals of different groups to clearly stated shared objectives; and (3) to assure that the action research be linked to a base of generalizable theory.

4. Effective action research depends upon a realistic timeline with time allocations for theory and research, variable specification, instrument development, field-testing, study and revision as well as actual change implementation. This may necessitate a longitudinal involvement over several school years. This represents a major time commitment on the part of the cooperating institutions.

5. Federal and state guidelines that require community involvement at all stages of applied social action research and program development necessitate a long-term funding commitment to insure the personnel, quality of action research and program outcomes.

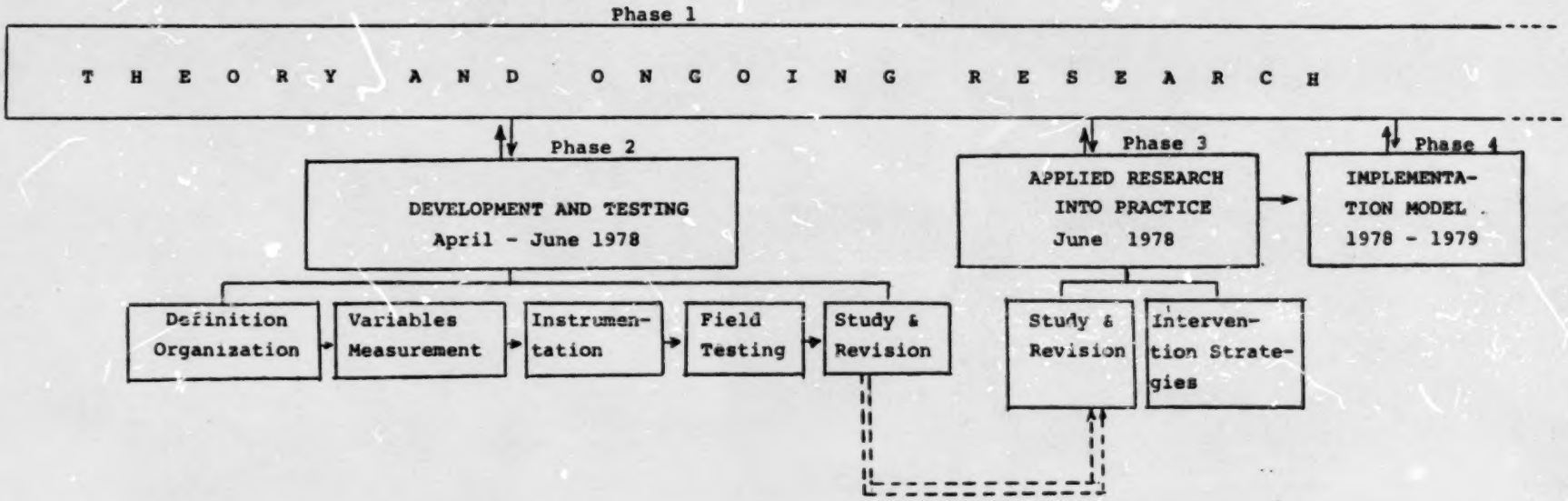

Figure 1
Flowchart Depicting the Implementation Schedule

Notes

1. A paper presented at the American Educational Research Association Conference, Division H Symposium, Optimizing Achievement in a Desegregated School District: The Uses of Education Research, San Francisco, April 1979.

2. The project was supported in part by funds from the Illinois Office of Education (EEO Department), Center for Program Development in Equal Opportunity, Illinois School District #163 and the Office of Evaluation Research, University of Illinois at Chicago Circle.

3. We wish to acknowledge the contribution of the following people who played instrumental roles in making this study possible: Jean Bernstein, Assistant Superintendent of Curriculum, Illinois School District #163; the parents, teachers and other District #163 personnel; and the Office of Evaluation Research affiliated staff: Herbert J. Walberg, Barbara Iverson, Richard Lysakowski, Diane Schiller, and Margaret Uguroglu.

4. Walberg, H. J. Psychological theory of educational productivity. Invited address presented at the annual meeting of the American Psychological Association, Toronto, Ontario, Canada, 1978.

5. _____, A theoretical model of educational productivity and its practical implications. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, California, 1979.

6. After extensive discussion, the group concluded that by third grade, parents who read to their children are those whose children are having reading difficulty, hence the negative correlation between reading to children and low achievement scores.

References

Anderson, G.J., & Walberg, H.J. The assessment of learning environments: A manual for the Learning Environment Inventory and the My Class Inventory. Office of Evaluation Research, unpublished test, University of Illinois at Chicago Circle, 1974.

Circirelli, V. G. The relationship of sibling structure to intellectual abilities and achievement. Review of Educational Research, 1978, 48, 365-381.

Clifford, G. J. A history of the impact of research on teaching. In R. M. W. Travers (Ed.), Second handbook of research on teaching. Chicago: Rand McNally, 1973.

Corey, S. M. Action research to improve school practices. New York: Bureau of Publications, Teachers College, Columbia University, 1953.

Gittell, M. Participants and participation. New York: Praeger, 1967.

Grand, Carl A. Community participation in education. Boston, Mass.: Allyn & Bacon, 1979.

Hodgkinson, H. L. Action research: A critique. Journal of Educational Sociology, 1957, 31, 137-153.

Steele, J.M., Walberg, H.J., & House, E.P. Subject areas and cognitive press. Journal of Educational Psychology, 1974, 66, 363-366.